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EXAMINER
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GRAHAM, CLEMENT B

ART UNIT	PAPER NUMBER
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3692

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/034,872	<b>Applicant(s)</b> PURCELL, W. RICHARD	
	<b>Examiner</b> CLEMENT B. GRAHAM	<b>Art Unit</b> 3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,11-30,32,34-42 and 44-74 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,11-30,32,34-42 and 44-74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/28/2001</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-7, 9, 11-30, 32, 34-42, 44-74 remained pending in this Application.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9, 11-30, 32, 34-42, 44-74, are rejected under 35 U.S.C. 103(a) as being unpatentable over Edesess U.S Patent: 5, 884, 287 in view of Wallman US Patent 6, 360, 210.

As per claim 1, Edesess discloses a method that relates to informing investors for judging, selecting, and maintaining informed commitment to investment portfolios with optimal prospects for their long term investment plans, goals and priorities, comprising:

obtaining information on a financial plan including a time horizon of a plural number of investment periods from the time of an initial investment through times of withdrawals for meeting goals, amounts to be invested in a plurality of the periods, at least a first withdrawal amount to be withdrawn for a goal in a period before the end of the time horizon, and an amount of a final wealth goal at the end of the time horizon (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67) and information on a plurality of investment categories including expected return rates, return-rate standard deviations, and correlation coefficients for the individual investment period identifying a series of investment portfolio plans from more conservative to more aggressive, comprising portfolios each with a different expected return rate and a return-rate standard deviation for the individual period, each portfolio comprising a mix of investment categories diversified to offer its expected return rate with smallest or nearly smallest return-rate standard deviation (see abstract

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and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67)

developing for each portfolio plan, through simulation, a probability distribution for the final wealth for the financial plan with that portfolio plan, each simulation proceeding period by period through the time horizon, each period adding any amounts to be invested in that period, subtracting any amounts to be withdrawn in that period, and applying for each portfolio a return rate determined for that period based on the portfolio's expected return rate and return-rate standard deviation, the simulations and probability distributions providing a basis for comparing the portfolio plans in various aspects of prospects for the financial plan and goals including probability that the final wealth result will be at least as great as the final wealth goal, probabilities for how far above the goal the final wealth result may be, probabilities for how far below the goal the final wealth result may be, and prospects for period-by-period path of value variation and development through the time horizon(see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

Edesess fail to explicitly teach providing at least a first comparison of the portfolio plans in a first criterion, that criterion being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals and priorities, and the investor's informed commitment to the choice.

However Wallman discloses according to the present invention, a computer-based system for managing risk underlying a portfolio of assets/liabilities, includes a graphical user interface, a memory (with a custodial feature), a processor and a link to the party incurring the risk, which could include the public markets through publicly traded hedging devices such as puts and calls. The graphical user interface enables the user to enter information about the portfolio, including a list of assets/liabilities, values for each of the assets/liabilities, shares owned or a percentage of each issue as part of the entire portfolio, and an input of what the user wishes to have limited for downside risk

("shielded or protected"). The memory with the custodial feature stores the portfolio to be shielded. The processor analyzes the portfolio using, among other known techniques, value-at-risk and sensitivity algorithms and probabilistic analysis to determine an expected likelihood of a catastrophic loss in value at a plurality of specified levels and a likely distribution of outcomes for the portfolio over specified periods, and can also calculate the cost of hedging the risk through the purchase of instruments traded in the public markets. Furthermore, the processor provides a series of choices to the user via the graphical user interface to select a time period or periods for which the user seeks shielding from market risk for the portfolio, (ii) a degree of market risk protection, said processor pricing the requested shielding including by reviewing the cost of hedging, and (iii) a menu of pricing mechanisms. The linkage to the third party incurring the risk can be an internal linkage if the system operator will be incurring the risk directly, or to an independent third party such as an insurance company, a hedge fund, or another party that is incurring the risk (including the public markets if the risk is hedged through publicly traded instruments), etc.(see column 6 lines 1-65 and column 9 lines 19-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Edesess to include providing at least a first comparison of the portfolio plans in a first criterion, that criterion being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals and priorities, and the investor's informed commitment to the choice taught by in order to Wallman in order to allow investors to understand the potential for long term returns from investments in risky assets.

As per claim 2, Edesess discloses a method, wherein:  
said investment period is the year. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 3, Edesess discloses wherein:

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at least one of said investment categories is an asset class. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 4, Edesess discloses, wherein:  
at least one of said investment categories is a mutual fund or other investment vehicle. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 5, Edesess discloses a wherein:  
said step includes displaying identifications of a number of investment categories from which the user may choose a plurality of investment categories. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 6, Edesess discloses a method, , wherein:  
said displaying step includes displaying data on return rates of said investment categories. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 7, Edesess discloses a wherein:  
said displaying step includes enabling revision or replacement by the user of at least one of said identifications or said data on return rates. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 9, Edesess discloses wherein:  
said financial plan includes a plurality of investment amounts or portions of investment amounts subject to different rules of taxation. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 11, Edesess discloses wherein:  
said financial plan includes data to enable calculation of amounts and time periods of deductions from a portfolio plan for fees and costs and for taxes including deductions based on investment returns, withdrawals from a portfolio, and portfolio value. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 12, Edesess discloses wherein:  
said financial plan includes at least a first inflation rate to enable calculation of inflation adjustments of future values. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 13, Edesess discloses wherein:  
said financial plan includes information defining as a probability distribution said number of said investment periods in said time horizon, said first inflation rate, or any other item of said information on said financial plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 14, Edesess discloses wherein:  
any investment amount, withdrawal amount, final wealth, or other measure of financial value may be expressed either before or after adjustment for any of the following: any fees and costs, any taxes, any inflation. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 15, Edesess discloses wherein:  
said identifying step includes applying concepts of Modern Portfolio Theory using said data on return rates of ~ a plurality of investment categories to obtain information defining an efficient frontier curve on a graph, said curve comprising a range of portfolio points each representing a number of portfolios offering various expected return rates with smallest return-rate standard (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 16, Edesess discloses wherein:  
said applying step includes applying concepts and methods known collectively as CAPM including investing or borrowing at a rate commonly termed a "risk-free" rate. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 17, Edesess discloses wherein:  
said portfolios includes only portfolios having allocation proportions that conform to at least a first allocation constraint defining a minimum or maximum total allocation proportion for each of a number of said investment categories. (see abstract and

column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 18, Edesess discloses wherein:  
said portfolios includes only portfolios in which the allocation proportions of said investment categories are integer multiples of an integer allocation percentage increment. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 19, Edesess discloses wherein:  
said portfolios are grouped and characterized with respect to expected return rate according to an incremental sequence of expected return rates.

As per claim 20, Edesess discloses wherein:  
said applying step includes displaying said efficient frontier curve on an efficient frontier graph with axes representing expected return rate and return rate standard deviation. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 12, Edesess discloses wherein:  
said displaying step includes showing on said efficient frontier graph a number of portfolio points each representing a user-specified portfolio. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 22, Edesess discloses wherein:  
said displaying step includes enabling user interaction with said graph including choosing at least a first portfolio point and showing information for said first portfolio point graphically and numerically, said information including an expected return rate, a return rate standard deviation, and allocation proportions of at least a first portfolio corresponding to said first portfolio point. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 23, Edesess discloses, wherein:  
said information includes allocation proportions for each of a plurality of portfolios may determined to best correspond to said first chosen portfolio point. (see abstract and



column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 24, Edesess discloses wherein:  
said information includes upper and lower limits at a specified confidence level for the highest and lowest return rate in the best and worst investment periods of said time horizon. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 25, Edesess discloses wherein:  
each of said portfolio plans comprises a plurality of component portfolio plans in which separate investment amounts or separate portions of investment amounts may be placed. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 26, Edesess discloses wherein:  
said Component portfolio plans in a portfolio plan are subject to different rules of taxation. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 27, Edesess discloses wherein:  
said component portfolio plans in a portfolio plan comprise different portfolios. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 28, Edesess discloses wherein:  
at least one portfolio plan or component portfolio plan is rebalanced at the end of at least a first investment period, having at the start of the next investment period the same portfolio as at the start of said first investment period. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 29, Edesess discloses wherein:  
at least one portfolio plan or component portfolio plan is reallocated at least once during said time horizon, comprising one portfolio before said reallocation and another portfolio after said reallocation. (see abstract and column 2 lines 31-67 and column 3 lines 1-29

and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 30, Edesess discloses wherein:  
said series comprises portfolio plans that each have the same number of component portfolio plans and are all defined according to a common system of increments and limits regarding portfolios in the first investment period of said time horizon and times and methods of rebalancing and reallocation of portfolios in subsequent investment periods of said time horizon. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 26, Edesess discloses wherein:  
said first criterion is the highest value that said final wealth has a predetermined probability of equaling or exceeding. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 34, Edesess discloses wherein:  
said simulation includes determining separately for each investment period of each simulation a return rate for at least a first portfolio of said portfolio plan for said investment period by random selection from a probability distribution for the return rate of said portfolio. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 35, Edesess discloses wherein:  
said probability distribution for a return rate is determined using an expected return rate and a return-rate standard deviation and assuming one of a number of shapes for said probability distribution. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 36, Edesess discloses wherein:  
said assuming step includes assuming that said shape of said probability distribution is normal or abnormal. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 37, Edesess discloses wherein:  
said determining step includes establishing said probability distribution for the return rate of at least one portfolio in at least one investment period using at least a first serial

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correlation coefficient reflecting an effect upon said probability distribution of at least one return rate in at least one previous investment period. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 38, Edesess discloses, wherein:  
said determining step includes ascertaining for at least one investment period a return rate for at least a second portfolio in said portfolio plan in said investment period by random selection from a probability distribution for said return rate determined using a return rate randomly selected for said first portfolio for said investment period and the covariance of the return rates of said first portfolio and said second portfolio. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 39, Edesess discloses wherein:  
said simulation includes for each simulation determining a return rate for each portfolio in a portfolio plan in each investment period of said time horizon by random selection of a historical investment period using actual historical return rates of investment categories for the selected historical investment period. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 40, Edesess discloses wherein:  
said simulation includes for each simulation using historical return rates of investment categories for a series of consecutive historical investment periods equal in number to the number of investment periods in said time horizon. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 41, Edesess discloses wherein:  
said simulation includes determining values of a number of items in said financial plan by random selection from probability distributions of values of said items. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 42, Edesess discloses wherein:

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said step includes grouping final wealth produced by said simulations according to a scale of value increments to develop a final wealth frequency distribution, interpreting said final wealth frequency distribution as a final wealth probability distribution, and using said probability distribution to determine specifications of said probability distribution such as the expected final wealth or the median final wealth, the probability that the final wealth will equal or exceed a value, or the largest value that the final wealth has a probability of equaling or exceeding. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 44, Edesess discloses wherein:

said providing step includes comparing in said first comparison a number of portfolio plans designated by the user. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 45, Edesess discloses, wherein:

said providing step includes displaying for each of said series of portfolio plans a plurality of the following: identifying name, symbol, or number; expected final wealth; median final wealth; probability that the final wealth will equal or exceed a predetermined amount; highest amount that the final wealth has a predetermined probability of equaling or exceeding; an expected return rate characteristic of the portfolio plan; a return-rate standard deviation characteristic of the portfolio plan; a lowest-return-rate characteristic of the portfolio plan for an individual investment period relative to a predetermined probability; and a lowest-return-rate characteristic of the portfolio plan for the investment period in which said characteristic is lowest of all investment periods in said time horizon relative to a predetermined probability. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 46, Edesess discloses wherein:

said providing step includes presenting said first comparison graphically. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 47, Edesess discloses wherein:

said presenting step includes displaying said first comparison in a graph with a first axis representing said first criterion, a second axis representing a second measure of said portfolio plan, and a portfolio plan point representing each portfolio plan in said series relative to said first axis and said second axis. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 48, Edesess discloses wherein:

said second measure is one of the following: identifying name, symbol, or number; expected final wealth; median final wealth; probability that the final wealth will equal or exceed a predetermined amount; highest amount that the final wealth has a predetermined probability of equaling or exceeding; an expected return rate characteristic of the portfolio plan; a return-rate standard deviation characteristic of the portfolio plan; a lowest-return-rate characteristic of the portfolio plan for an individual investment period relative to a predetermined probability; and a lowest-return-rate characteristic of the portfolio plan for the investment period in which said characteristic is lowest of all investment periods in said time horizon relative to a predetermined probability. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 49, Edesess discloses wherein:

said displaying step includes choosing by the user of at least a first portfolio plan point represented on said graph. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 50, Edesess discloses wherein:

said choosing step includes choosing by the user of a value along an axis of said graph from which value said first portfolio plan point is designated. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 51, Edesess discloses wherein:

said choosing step includes displaying values associated with said first portfolio plan point relative to each axis of said graph. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 52, Edesess discloses wherein:  
said choosing step includes identifying at least a first portfolio plan designated to correspond to said first portfolio plan point. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 53, Edesess discloses whereto:  
said identifying step includes displaying allocation proportions of at least a first portfolio of said first portfolio plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 54, Edesess discloses wherein:  
said displaying step includes presenting additional information necessary to determine all allocation proportions of all portfolios in said first portfolio plan in each investment period of said time horizon. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 55, Edesess discloses wherein:  
said choosing step includes identifying each of a plurality of portfolio plans designated to correspond to said first portfolio plan point. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 56, Edesess discloses wherein:  
said choosing step includes selecting at least a first portfolio plan corresponding to a point on said graph. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 57, Edesess discloses wherein:  
said selecting step includes displaying a probability distribution graph showing a probability distribution of the final wealth of said first portfolio plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 58, Edesess discloses wherein:  
said displaying step includes showing on said probability distribution graph a probability distribution of the final wealth of a second portfolio plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-

67).

As per claim 59, Edesess discloses wherein:

said displaying step includes indicating by the user of a target value for the final wealth of a portfolio plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 60, Edesess discloses wherein:

said indicating step includes showing for each of a number of portfolio plans represented on said probability distribution graph the probability that the final result will equal or exceed said target value. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 61, Edesess discloses wherein:

said selecting step includes displaying a simulations graph showing at least a first simulation of the progression of portfolio value investment period by investment period through the time horizon for said first portfolio plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 62, Edesess discloses wherein:

said displaying step includes showing on said simulations graph a plurality of said simulations. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 63, Edesess discloses wherein:

said displaying step includes showing on said simulations graph a number of said simulations for a second portfolio plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 64, Edesess discloses wherein:

said selecting step includes displaying a sensitivity graph in which a first axis represents a range of values for a first item of said financial plan, a second axis represents a range of values for said first criterion, and values are represented for said first criterion of said first portfolio plan for each of a plurality of values of said first item of said financial plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 26, Edesess discloses wherein:  
said first item of said financial plan is said time horizon. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 66, Edesess discloses wherein:  
said displaying step includes showing on said sensitivity graph values for said first criterion of a second portfolio plan for each of a plurality of values of said first item of said financial plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 67, Edesess discloses wherein:  
said displaying step includes showing on said sensitivity graph a plurality of curves each representing a different value for a second item of said financial plan and showing values of said first criterion of said first portfolio plan for each of a plurality of values of said first item of said financial plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 68, Edesess discloses wherein:  
said displaying step includes choosing by the user of a value for each of a number of items of said financial plan and displaying a corresponding value of said first criterion for said first portfolio plan. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 69, Edesess discloses wherein:  
said obtaining step includes providing a user interface on a screen of a computer or other electronic device for user selectable display of said information including entry boxes in which the user may make entries or changes in said information and buttons or other interaction objects by which the user may make selections pertaining to said information, said investment categories, said portfolios, and said portfolio plans. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claim 70, Edesess discloses wherein:  
said providing step includes providing a user interface on a screen of a computer or



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other electronic device for user selectable display of a number of said comparisons, graphs, and information on portfolio plans, including scrollbars, buttons, or other objects through which the user may make selections and carry out other interactions relative to said comparisons, graphs, and information. (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

As per claims 71-74, Edesess discloses an apparatus that relates to finding best investment portfolio plans for long-term financial plans and goals comprising: computer memory for storing information on a financial plan including a time horizon of a plural number of investment periods from the time of an initial investment through times of withdrawals for meeting goals, amounts to be invested in a plurality of the periods, at least a first withdrawal amount to be withdrawn for a goal in a period before the end of the time horizon, and an amount of a final wealth goal at the end of the time horizon; and information on a plurality of investment categories including expected return rates, return-rate standard deviations, and correlation coefficients for the individual investment period(see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67)

and at least a first computer processor for:  
identifying a series of investment portfolio plans from more conservative to more aggressive, comprising portfolios each with a different expected return rate and a return-rate standard deviation for the individual period, each portfolio comprising a mix of investment categories diversified to offer its expected return rate with smallest or nearly smallest return-rate standard deviation(see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67)  
developing for each portfolio plan, through simulation, a probability distribution for the final wealth for the financial plan with that portfolio plan, each simulation proceeding period by period through the time horizon, each period adding any amounts to be invested in that period, subtracting any amounts to be withdrawn in that period, and applying for each portfolio a return rate determined for that period based on the portfolio's expected return rate and return-rate standard deviation, the simulations and probability distributions providing a basis for comparing the portfolio plans in various

aspects of prospects for the financial plan and goals including probability that the final wealth result will be at least as great as the final wealth goal probabilities for how far above the goal the final wealth result may be, probabilities for how far below the goal the final wealth result may be and prospects for period-by-period path of value variation and development through the time horizon(see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

Edesess fail to explicitly teach providing at least a first comparison of the portfolio plans in a first criterion, that criterion being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals and priorities, and the investor's informed commitment to the choice.

However Wallman discloses according to the present invention, a computer-based system for managing risk underlying a portfolio of assets/liabilities, includes a graphical user interface, a memory (with a custodial feature), a processor and a link to the party incurring the risk, which could include the public markets through publicly traded hedging devices such as puts and calls. The graphical user interface enables the user to enter information about the portfolio, including a list of assets/liabilities, values for each of the assets/liabilities, shares owned or a percentage of each issue as part of the entire portfolio, and an input of what the user wishes to have limited for downside risk ("shielded or protected"). The memory with the custodial feature stores the portfolio to be shielded. The processor analyzes the portfolio using, among other known techniques, value-at-risk and sensitivity algorithms and probabilistic analysis to determine an expected likelihood of a catastrophic loss in value at a plurality of specified levels and a likely distribution of outcomes for the portfolio over specified periods, and can also calculate the cost of hedging the risk through the purchase of instruments traded in the public markets. Furthermore, the processor provides a series of choices to the user via the graphical user interface to select: a time period or periods for which the user seeks shielding from market risk for the portfolio, (ii) a degree of

market risk protection, said processor pricing the requested shielding including by reviewing the cost of hedging, and (iii) a menu of pricing mechanisms. The linkage to the third party incurring the risk can be an internal linkage if the system operator will be incurring the risk directly, or to an independent third party such as an insurance company, a hedge fund, or another party that is incurring the risk (including the public markets if the risk is hedged through publicly traded instruments), etc.(see column 6 lines 1-65 and column 9 lines 19-65).

Therefore it would have been obvious tone of ordinary skill in the art at the time the invention was made to modify the teachings of Edesess to include providing at least a first comparison of the portfolio plans in a first criterion, that criterion being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals and priorities, and the investor's informed commitment to the choice taught by in order to Wallman in order to allow investors to understand the potential for long term returns from investments in risky assets.

### **Conclusion**

### **RESPONSE TO ARGUMENTS**

4. Applicant's arguments filed 12/8/2007 has been fully considered but they are not persuasive for the following reasons.
5. In response to Applicant's arguments that Edesess and Wallman fail to teach or suggest" each period adding any amounts to be invested in that period, subtracting any amounts to be withdrawn in that period, and applying for each portfolio a return rate determined for that period based on the portfolio's expected return rate and return-rate standard deviation, the simulations and probability distributions providing a basis for comparing the portfolio plans in various aspects of prospects for the financial plan and goals including probability that the final wealth result will be at least as great as the final wealth goal, probabilities for how far above the goal the final wealth result may be, probabilities for how far below the .goal the final wealth result may be, and prospects for

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period-by-period path of value variation and development through the time horizon and providing at least a first comparison of the portfolio plans in a first criterion, that criterion being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the investor judges optimal for his plan, goals and priorities, and the investor's informed commitment to the choice obtain information on a financial plan including a time horizon of a plural number of investment periods from the time of an initial investment through times of withdrawals for meeting goals, amounts to be invested in a plurality of the periods, at least a first withdrawal amount to be withdrawn for a goal in a period before the end of the time horizon, and an amount of a final wealth goal at the end of the time horizon; and information on a plurality of investment categories including expected return rates, return-rate standard deviations, and correlation coefficients for the individual investment period identifying a series of investment portfolio plans from more conservative to more aggressive, comprising portfolios each with a different expected return rate and a return-rate standard deviation for the individual period, each portfolio comprising a mix of investment categories diversified to offer its expected return rate with smallest or nearly smallest return-rate standard deviation developing for each portfolio plan, through simulation, a probability distribution for the final wealth for the financial plan with that portfolio plan, each simulation proceeding period by period through the time horizon," the Examiner disagrees with Applicant because Applicant's claimed limitations were addressed as stated,

Edesess discloses a method that relates to informing investors for judging, selecting, and maintaining informed commitment to investment portfolios with optimal prospects for their long term investment plans, .goals, and priorities, comprising:

obtain information on a financial plan including a time horizon of a plural number of investment periods from the time of an initial investment through times of withdrawals for meeting goals, amounts to be invested in a plurality of the periods, at least a first withdrawal amount to be withdrawn for a goal in a period before the end of the time

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horizon, and an amount of a final wealth goal at the end of the time horizon; and information on a plurality of investment categories including expected return rates, return-rate standard deviations, and correlation coefficients for the individual investment period(see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67

identifying a series of investment portfolio plans from more conservative to more aggressive, comprising portfolios each with a different expected return rate and a return-rate standard deviation for the individual period, each portfolio comprising a mix of investment categories diversified to offer its expected return rate with smallest or nearly smallest return-rate standard deviation (see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67)

developing for each portfolio plan, through simulation, a probability distribution for the final wealth for the financial plan with that portfolio plan, each simulation proceeding period by period through the time horizon, each period adding any amounts to be invested in that period, subtracting any amounts to be withdrawn in that period, and applying for each portfolio a return rate determined for that period based on the portfolio's expected return rate and return-rate standard deviation, the simulations and probability distributions providing a basis for comparing the portfolio plans in various aspects of prospects for the financial plan and goals including probability that the final wealth result will be at least as great as the final wealth goal, probabilities for how far above the goal the final wealth result may be, probabilities for how far below the goal the final wealth result may be, and prospects for period-by-period path of value variation and development through the time horizon(see abstract and column 2 lines 31-67 and column 3 lines 1-29 and column 4 lines 4-67 and column 5-7 lines 1-67).

Edesess fail to explicitly teach providing at least a first comparison of the portfolio plans in a first criterion, that criterion being probability that the final wealth will meet or exceed the goal, revealing which of the portfolio plans are best and close to best with respect to the first criterion, to inform the investor for selecting portfolio plans for comparison in other aspects of prospects for the plan and goals, selection of a portfolio plan the

investor judges optimal for his plan, goals and priorities, and the investor's informed commitment to the choice.

However Wallman discloses according to the present invention, a computer-based system for managing risk underlying a portfolio of assets/liabilities, includes a graphical user interface, a memory (with a custodial feature), a processor and a link to the party incurring the risk, which could include the public markets through publicly traded hedging devices such as puts and calls. The graphical user interface enables the user to enter information about the portfolio, including a list of assets/liabilities, values for each of the assets/liabilities, shares owned or a percentage of each issue as part of the entire portfolio, and an input of what the user wishes to have limited for downside risk ("shielded or protected"). The memory with the custodial feature stores the portfolio to be shielded. The processor analyzes the portfolio using, among other known techniques, value-at-risk and sensitivity algorithms and probabilistic analysis to determine an expected likelihood of a catastrophic loss in value at a plurality of specified levels and a likely distribution of outcomes for the portfolio over specified periods, and can also calculate the cost of hedging the risk through the purchase of instruments traded in the public markets. Furthermore, the processor provides a series of choices to the user via the graphical user interface to select: (i) a time period or periods for which the user seeks shielding from market risk for the portfolio, (ii) a degree of market risk protection, said processor pricing the requested shielding including by reviewing the cost of hedging, and (iii) a menu of pricing mechanisms. The linkage to the third party incurring the risk can be an internal linkage if the system operator will be incurring the risk directly, or to an independent third party such as an insurance company, a hedge fund, or another party that is incurring the risk (including the public markets if the risk is hedged through publicly traded instruments), etc.(see column 6 lines 1-65 and column 9 lines 19-65).

Therefore it is obviously clear that Applicant's claimed limitations were addressed within the teachings of Edesess and Wallman.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 571-272-6795. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Adbi can be reached on 571-272-6702. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0040 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLEMENT B. GRAHAM whose telephone number is (571)272-6795. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Frantzy Poinvil/  
Primary Examiner, Art Unit 3692

CG

March 11, 2008